

CASTLEMAINE NATURALIST

FEBRUARY 1982

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Flowers of the Castlemaine District

by Rita

Dotted Sun Orchid

Thelymitra ixioides.

Flowering Mid Spring

Usually a brilliant deep blue, these orchids, like all sun orchids (except the Veined Sun Orchid) only opens in the sun. It can be found, often with the orchid featured last month, the Scented Sun Orchid, in a number of areas around the district. I know it particularly from North Castlemaine where it was a favourite of mine as a child. The bush where it grew, in company with a pink form, has now gone to agriculture and I have never seen the pink form since.

The plant grows to about 40 cm and has a number of flowers up to 2.5 cm wide. The column is more "pinched" than the Scented Sun Orchid, and the brushes are less dense.

The leaf is spathose, meaning "like a spathe". Spathe comes from the Latin spatha: meaning a two-edged broad sword.

Correction: In last months edition the word spatulate was used incorrectly instead of spathose, also it is the flower which is 2.5 cm wide, not the leaf.



President :	Mr G. Sitch	Ph 72 2734
Secretary :	Mrs M. Lindsay	72 2720
Treasurer :	Mr F. Meyer	72 1958
Newsletter:	Mr G. Broadway	72 2513

Congratulations to founding president Ray Bradfield.

Members of the Castlemaine Field Naturalists' Club are delighted to extend their congratulations to Ray, following the announcement in the Australia Day honors list that he has been awarded the Medal of the Order of Australia.

Ray's service to the Field Naturalist Club is but one aspect of a life of many years of community service. He has been also involved in the Castlemaine Historical Society of which he was president for many years, with the R.S.L, the Guildford Fire Brigade, the Victorian Arts Council, and is also a Justice of the Peace. Visitors to Castlemaine will know him as the curator of the Castlemaine Market Museum.

Readers of the Castlemaine Mail will no doubt be surprised at Ray's age; it must be said that he is very well preserved having been born in 1812 (sic).

Concern Expressed Over Proposed Mining Legislation

At the January Committee meeting President Geoff and Ern Perkins reported on a meeting which they had attended in Bendigo, at which certain aspects of the proposed mining legislation were questioned. As a result of the discussion which followed it was decided that a letter should be written to Mr Bill Ebery, MLA, seeking clarification of a number of points. Copies of the letter were also sent to the various local Government bodies. The major points on which clarification was sought were as follows:-

1. Sensitive areas : Will there be provision for sufficient consultation with controlling authorities in areas subject to erosion, or with special significance for the protection of wildlife.
2. Adequate Staff: Before the granting of a mining lease the mining inspector would need to consult with other departments to formulate any special requirements for the area. Will there be sufficient staff for this to be done adequately ?
3. Size of Lease : Will one person or a group of persons be able to take out adjoining leases ?
4. Removal of trees, gravel, etc.: Will there be any restriction on the removal of trees, or the removal of gravel from a lease ?
5. Rehabilitation: Miners will be required to enter a bond of \$200 for reclamation work. If earth-moving equipment is used, the cost of reclamation could be far in excess of that amount. Will this mean that reclamation would not then in fact be done ?
6. Other Controls: Is it true that the legislation would over-ride existing controls such as the L.C.C., Town & Country Planning, etc ?

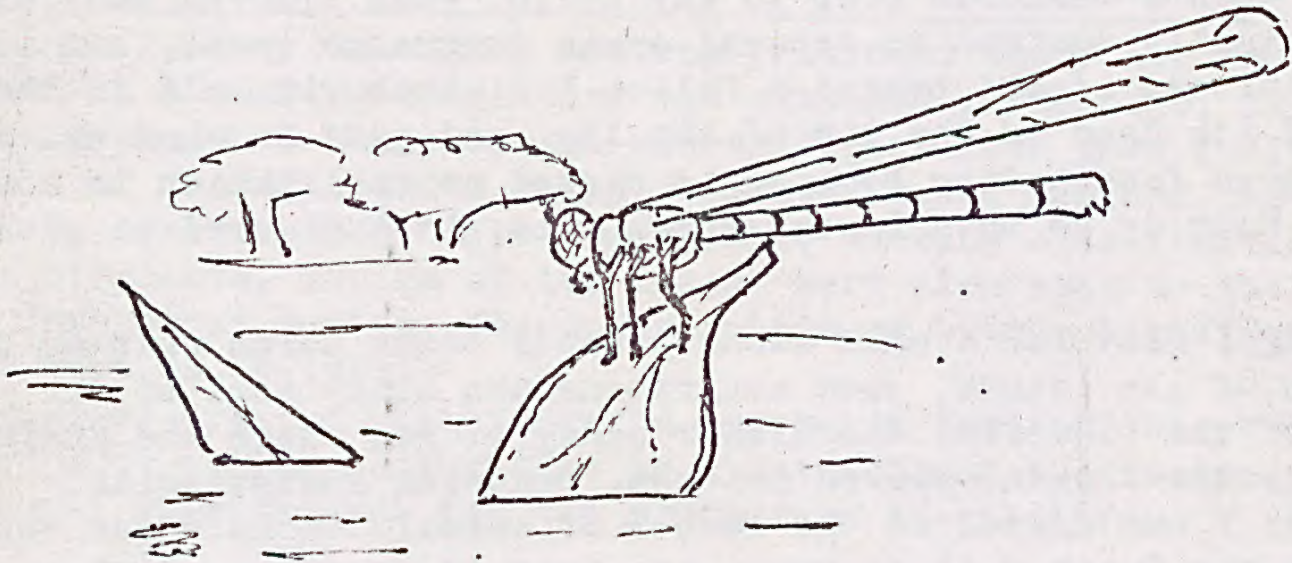
I had decided some time ago that I would like to camp at Hattah Lake during January so last week, despite raging heat and bushfire, off I went, much to everyone's seeming amazement. Hattah used to be a favourite place to visit when we lived in Mildura and I was anxious to renew acquaintance with various localities and plants. Much to my regret, I did not possess a pair of binoculars before we moved to Castlemaine, so I was hoping to spot many of the birds which I had formerly seen only as specks in the distance.

Having duly arrived, felt the fierce heat radiated from the ground, and set up camp in the shade of the Red Gums, but not too close as I didn't want any branches falling on me, my first visitors were a party of Wood Ducks who seemed to think they owned the camp ground. They continued to visit regularly during my stay, especially early in the morning. Shortly afterwards, who should come ambling along the shore towards my camp, but a large Sand Monitor or Goanna, *Varanus gouldii*. He (or she) was however rather shy, and was very quick to scale the nearest tree when I wandered over to say hullo. When I moved away, she (or he), eventually decided to descend again to ground level, but went over and positioned itself behind a fallen log which was half in the water, rested its head on the top of the log, and just watched me. I must have been fascinating because it showed no inclination to move but after an hour or so when I went for a swim, it had moved on when I returned.

One morning I went for a walk along a sandy track which skirted the lake for much of its length, just separating the heavy soil of the flood plain of the lake from the higher sandy ridges where the dominant vegetation was the Slender-leaved Hopbush, *Dodonaea angustissima*. When in Canada I was amazed at the number of animal tracks which would quickly cover any fresh fall of snow, now here it was very similar except that instead of cold white snow it was hot red sand. It seemed that hundreds of animals must have crossed that track during the night to get to the lake. Kangaroos, wallabies, goannas, skinks of various sizes, emus, and legless lizards or snakes. In many places, well-worn trails through the grass showed that that was a favourite crossing point for wallabies or goannas. Further on I met the owners of some of the tracks, groups of Mallee Kangaroos, *Macropus fuliginosus*, relaxing in the shade of red gums down by the edge of the lake. As I approached they each started up and took on the appearance of a mallee stump, however with a pair of ears on the top. Just gazing around it was surprising to see just how many stumps were sporting ears. Returning by the edge of the lake towards midday I came up behind another track-maker, strolling along the waters edge, investigating pieces of bark and twigs. It was another large goanna of about 4-5 feet in length, (sorry, 1.5 metre), the length greatly assisted by the long thin tail. Unfortunately, as I endeavoured to steal around in front without disturbing him, while reaching for my camera, I snapped a twig under my

root and in a matter of seconds that long tail was hanging down from the security of a large red gum growing near the waters edge. Well, I only wanted to stroll along in company, but as the company seemed quite happy to cling to the tree for the remainder of the day, I could see no point in hanging around

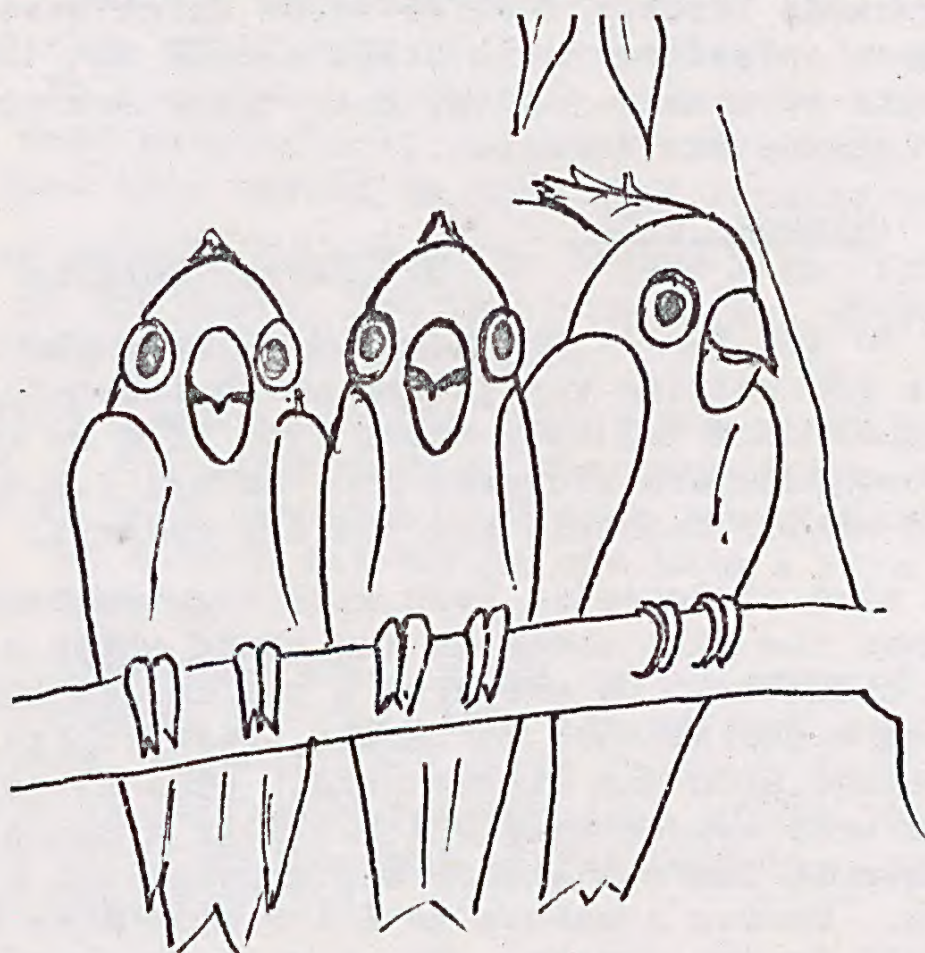
Immersed in the lake later in the afternoon, I amused myself by watching the leaves falling from the red gums into the lake. Although the lake was like a warm bath, it was probably cooler than the air, so that was where I spent the afternoon. Now many of the gum leaves were curled so that when they alighted on the water they floated so that the ends stuck up in the air catching the breeze, whereupon they sailed off into the distance looking like miniature Spanish galleons with their high poop and forecastle. Nor did they lack for a crew, for usually one of the Damsel-flies skimming the lake surface would rest awhile and be the captain. Sometimes it would be a honeymoon cruise, for a red and a blue Damsel-fly would sail off together, locked together in what might be called a fond embrace. At least when their ship became water-logged and sank, they would not need to take to the boats.



Hattah is not a good place to go if you are hoping to sleep in in the mornings. First the kookaburras would wake everyone up, then the multitude of galahs perched in the trees around the lake would start to screech as they whirled in and out among the trees. What a deafening chorus they made. Later in the middle of the afternoon they would be quiet as they perched in a shady spot, often above the lake, with the occasional bird keeping up a monotonous rasping sound, which went on and on,... At this time of day the only busy people were the large black cormorants which continued to work the middle of the lake, every so often giving out a surprising grunt between dives. Perhaps they were spending most of their time down in the cooler water at the bottom of the lake. Certainly I did not see many fish caught at this stage.

As the afternoon wore on other birds would become more active. There was always some movement among the Noisy Miners but they became more lively as did the White-winged Choughs who foraged the lake shore in

family parties, throwing out most intruders as they went. It seemed that the Miners owned the trees while the Choughs were boss on the ground. However the Mudlarks were treated with respect, Choughs did not presume too far there. Mudlarks in fact visited frequently. I once went out to investigate a continuous rasping noise and found that it was coming from an adolescent Mudlark who was following his Mum around the edge of the water, keeping up a constant pleading for more food. Mum was smaller than he was and was looking quite harassed I thought. Reminded me a bit of some people. Another party consisted of a father mudlark with his three sons, (or so it appeared) the youngest of which again kept up the same monotonous pleading for food. Dad did not look as harassed as Mum however, his method of dealing with his offspring was to simply ignore him for most of the time, occasionally returning to stuff an offering down a pleading throat. Each afternoon a party of three Pink Cockatoos, Kakatoe leadbeateri, would come and take up a position on a branch over my camp and sit there quietly, solemnly looking down at me, making occasional conversational sort of noises.



Things have changed at Hattah since I was last there. At some stage the European carp, *Cyprinus carpio*, has found its way up the Chalka Ck into the lake system and has made a drastic change to the ecology. The ribbon weed has virtually gone and so have a lot of the water birds. Instead of the large flocks of Little Grebes and Hoary-headed Grebes, once so common, I saw only about half a dozen Crested Grebes. The Mallee area has changed too. Reduction of the rabbit population and the exclusion of grazing animals has led to marked regeneration of the native Pines especially *Callitris verrucosa*, Scrub Cypress Pine. Twenty years ago while with the Sunraysia Field Naturalists I visited

an area which had been fenced off to exclude rabbits, and inside the perimeter young cypress pines were springing up in great profusion, which demonstrated most effectively the detrimental effect the rabbits were having. Now there are many young stands of cypress pine on the sandy ridges. The Mallee scrub too has changed. In 1975 the area was swept by a large bushfire which killed off all the tops of the mallees. Regeneration has followed from the roots but the scrub has not yet regained its former height, so that one can see a lot further than as formerly the case. One of the most striking features of the regeneration has been the sudden prominence of two species which were formerly much less common, or at least much less conspicuous. One of these is the Bell-fruit Tree, *Codonocarpus cotinifolius*, of which I previously knew only a few specimens, the other is the Broom Ballart, *Exocarpus sparteus*. The Bell-fruit tree is tall, rather like a poplar in appearance hence its other common name, and is very conspicuous at present because it is so much taller than the surrounding Mallees, perhaps it will be less so as the Mallees grow back to their former height. On the other hand, perhaps the few trees which were there before the fire had been spreading their seeds around but they needed a fire before they would germinate. In any case there are now large numbers of these very attractive trees.

MALLEE FOWL

by Terry Collins

Mallee Fowl belong to the family "Megapodes" - birds who lay their eggs in mounds of soil and rotting vegetation which incubates their eggs instead of the usual nest and body heat. The bird we know as such ranges through North Western Victoria and Western N.S.W. where the weather pattern is winter rainfall and hot dry summers.

They are about the size of domestic hens with the breeding season beginning in winter when the male opens up the mound which could be around four metres in diameter. He prepares a pit in the centre where he rakes in surrounding material such as leaves, bark, twigs, etc., which is left to be soaked with the winter rain. Once it is thoroughly wet the birds cover it with heaped sand which starts a compost action. Later, a nesting chamber is dug out within the compost and a large egg is laid every few days. During a season of 6 - 8 months as many as 30 eggs may be deposited by the females. The egg is approximately one tenth of the hen's body weight, hence the male is required to do most of the work on the mound.

The eggs are hatched by the heat of the compost aided by the sun but the temperature must be maintained around 33°C. To achieve this the male checks by thrusting his beak into the mound and it is believed that his tongue is the sensitive organ. Too hot and the mound is opened a little or covered with sand to keep out the sun. Either way the male has to shift metres of material with his feet each time. Incubation takes about 50 days and the new chick may take several hours to dig its

way out where after a short spell it takes off into the bush to fend for itself without any apparent help from its parents. Predators such as foxes, dingoes, eagles and goannas do great havoc with the eggs and young; so much so that perhaps only one chick will survive to adulthood from each mound.

With the creation of the Wyperfeld and Little Desert National Parks it is hoped that this little hard-working bird will survive man's onslaught into its native territory

FRESHWATER RED ALGAE

The talk by Tim Entwisle on freshwater red algae given at the December meeting proved to be very interesting and well presented.

Tim described how he had spent the first 2 months of the University year collecting specimens for his project. Collections were made from such places as Darebin Creek which yielded mainly green algae (in the form of slime), but one specimen proved to be a recently discovered species of red alga which gave him a good deal of encouragement and satisfaction. He also found specimens under the the rocks at the Hopkins Falls near Warrnambool, and the same species at Wilson's Prom. He commented that they seemed to like fast running water and rocks.

Other hunting grounds included the Bogong High Plains, The Grampians, Dight's Falls on the Yarra, and Trentham Falls, where a good population was found in the pools above the falls.

After the first 2 months in the field, Tim spent the rest of his time on the project in the laboratory at the microscope. Careful drawings had to be made of each specimen, and each one classified, a slow and exacting task, but a very satisfying one when a rare or hitherto unknown specimen is discovered.

Unlike the filamentous green algae, which consist of rows of single cells forming strands, the red algae are several cells thick and are regularly branched, some looking quite feathery in appearance. They also have a totally different reproductive system, having separate male and female parts on the ends of the branches, the green algae have no specific reproductive cells.

Many of the red algae resemble rootlets, and even the experts are sometimes fooled, so when Tim's despised "fern roots" proved to be in fact a red alga after all, it made him feel that he was really getting somewhere.

The slides of the drawings he had made helped tremendously in explaining his points, and added to the interest of his talk.

Thank you Tim.

Calendar 1982

The committee has drawn up a tentative list of activities for the first part of 1982 as follows:-

Friday, February 12.

Annual General Meeting. Speaker - the retiring President, Mr Geoff Sitch. His subject will be "The Seasons in Castlemaine"

Saturday, February 13

Outing; Expedition Pass Reservoir. As February is usually a hot dry month, we will visit a spot where there is some water in the hope of finding some birds in the area.

Friday, March 12

Meeting: Education Centre. The speaker will be Mr J. Warden. Mr Warden is a teacher of science at the Castlemaine High School and has had considerable experience in mammal surveys. His subject will be "The Mammals of the Castlemaine Area".

Saturday, March 13

Outing : The Garden of St Erth. Simmons Reef near Blackwood. This garden is run by Mr T.R. Garnett who writes a weekly gardening column in the "Age" every Tuesday and by Mrs Garnett. Since retiring to Simmons Reef they have developed an interesting garden around an old Cornish miner's cottage in a most beautiful setting. The garden contains sections devoted to herbs, vegetables English shrubs, Australian natives, etc. There is also a nature walk down through a fern gully where many birds may be seen including the Rufous Fantail. In the bush nearby there is a suitable picnic spot.

April It was decided at the February committee meeting that because the dates for the April meeting and outing coincided with Easter, they would not therefore be held, and that the proposed activities would be held over till May. This means that the outing in May will probably be to Maldon to investigate aspects of the Geology of the area.

General meetings are held on the second Friday of the month at 8 p.m. in the Education Centre, Castlemaine.

Outings usually take place on the following Saturday, leaving the Ed. Centre at 1.30, after organising people into cars, etc.

Business meetings are held on the fourth Thursday of the month, at 8 p.m. in the Castlemaine Education Centre, Mostyn Street.

Any alterations in the above arrangements will be notified.

Members of the public and intending members are cordially invited to attend meetings or outings.